

ABSTRACT OF THE DISCLOSURE

The present inventors have discovered that Flavanone 3-hydroxylase ("FHT") is essential for plant growth. Specifically, the inhibition of FHT gene expression in plant seedlings results in small and chlorotic seedlings. Thus, FHT can be used as a target for the identification of herbicides. Accordingly, the present invention provides methods for the identification of compounds that inhibit FHT expression or activity. The present invention can be used to identify compounds having herbicide activity by contacting a compound with FHT and detecting the presence and/or absence of binding between the compound and the FHT, or alternatively, detecting a decrease in FHT expression or activity.